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By- Wakefield, Howard E.

Flexible Educational Facilities. An Annotated Reference List.

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Descriptors- *Annotated Bibliographies, Auditoriums, *Building Design, Building Innovation, Building Materials, Classroom Design, Controlled Environment, *Educational Facilities, Environmental Criteria, Equipment, Facility Case Studies, *Flexible Classrooms, *Flexible Facilities, Movable Partitions, Multipurpose Classrooms, Prefabrication, School Design, School Planning, Space Utilization

These references on flexible educational facilities are abstracted by the ERIC Clearinghouse on Educational Facilities. College material includes an experimental learning center, a college health center, a fine arts center, and university library design. References on schools include secondary school design, flexible high school design, standard junior-senior high school plans, school lighting, domes for schools, demographics factors in school house construction, and school construction systems development project. Acoustics are covered in references on the acoustical environment of school buildings, school noise and carpeting. Other references are--(1) teaching space dividers, (2) two multi-purpose corridors, (3) divisible auditoriums, (4) flexible walls, (5) materials for modernization, (6) educational facilities with new media, and (7) the space stage. (LD)

**CLEARINGHOUSE ON
EDUCATIONAL
FACILITIES**

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FLEXIBLE EDUCATIONAL FACILITIES

An Annotated Reference List

EF 002676

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FOREWORD

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ERIC/CEF is part of a network of national clearinghouses covering many fields of educational research. The information from all these clearinghouses is reported monthly in RESEARCH IN EDUCATION (RIE), a publication of the U.S. Government Printing Office (annual subscription: Domestic, \$21.00, Foreign \$26.25).

Many of the documents reported in RIE are available from the ERIC Document Reproduction Service. This service is currently provided by the National Cash Register Company, 4936 Fairmont Avenue, Bethesda, Maryland 20014. Individual documents may be obtained on microfiche at 25¢ for each 60 pages or fewer. Facsimile documents are available at 4¢ per page. Standing orders of all documents related to certain topics are available at 8.4 cents per fiche.

These references are drawn from the documents received and processed to date by ERIC/CEF. They are not represented as a comprehensive list of information on the subject. However, many of the documents are not widely circulated and are therefore useful in expanding existing information. All documents listed herein with an ED number (see symbol page) are available from EDRS. The remaining documents should be sought through the indicated publisher or distributor (the institution source or the information provided at the end of the abstract).

ERIC/CEF invites you to submit documents which are related to the activities described in the first paragraph above.

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Institution Source	THE INSTRUCTIONAL MATERIALS CENTER		
Date Published	BY- KLOSTER, ALEXANDER J. MICHIGAN DEPARTMENT OF EDUCATION, LANSING		
Report No. or Journal Citation	PUBLISHED- 65 IN- BULLETIN NO. 369		
Pagination	071 PAGES		
	DESCRIPTORS- *AUDIOVISUAL AIDS, *INSTRUCTIONAL MATERIALS, *INSTRUCTIONAL MATERIALS CENTERS, *LIBRARIES, CARRELS, INDIVIDUAL STUDY, STUDY FACILITIES		
Abstract	THIS BULLETIN PRESENTS RECOMMEND- ATIONS WITH REGARD TO PROGRAM, PERSONNEL, AND FACILITIES FOR AN INSTRUCTIONAL MATERIALS ORGANIZ- ATION AND LAYOUTS FOR AN INSTRUCT- IONAL MATERIALS CENTER. CASE STUDIES . AND EXAMPLES ARE PROVIDED FOR MAKING THE MAXIMUM POSSIBLE USAGE OF THE CENTER WITHIN BOTH THE SCHOOL AND THE COMMUNITY. (BD)		

Index Terms
(Major terms are
preceded by an
asterisk)

ANNOTATED REFERENCES

EXPERIMENTAL LEARNING CENTER

BY- GREER, JOHN T.
ARIZONA UNIVERSITY, TUCSON, COLLEGE OF EDUCATION

014 PAGES

DESCRIPTORS- *BUILDING INNOVATION, *CLASSROOM RESEARCH, *FLEXIBLE CLASSROOMS, CLASSROOM ENVIRONMENT, TEACHER EDUCATION

A RESEARCH AND DEMONSTRATION CENTER HAS BEEN BUILT AT THE UNIVERSITY OF ARIZONA TO (1) AID IN EDUCATIONAL RESEARCH, (2) DEMONSTRATE THE RELATIONSHIP BETWEEN EDUCATIONAL THEORY AND PRACTICE, (3) SERVE AS A MODEL FOR NEW IDEAS IN SCHOOL CONSTRUCTION AND EQUIPMENT, AND (4) PROVIDE AN OPPORTUNITY FOR STUDENT TEACHERS TO OBSERVE TEACHER AND STUDENT BEHAVIOR. USING EASILY MOVED WALL AND CEILING UNITS, THE SEVENTY-FIVE FOOT SQUARE AREA IS EASILY ARRANGED TO PROVIDE A VARIETY OF EDUCATIONAL ENVIRONMENTS. THE EQUIPMENT USED, (FURNITURE, AUDIO-VISUAL AIDS, ETC.) IS SIMILAR TO THAT FOUND IN TYPICAL SCHOOLS. (JT)

A COLLEGE HEALTH CENTER

BY- BARD, BERNARD
EDUCATIONAL FACILITIES LABORATORIES INC., NEW YORK, N. Y.

PUBLISHED- 63
IN- CASE STUDIES OF EDUCATIONAL FACILITIES, NO. 6

35 PAGES

DESCRIPTORS- *BUILDING INNOVATION, *COLLEGE BUILDINGS, *DESIGN NEEDS, *FLEXIBLE FACILITIES, *HEALTH FACILITIES, BUILDING DESIGN, CLINICS, COLLEGE PLANNING, CONSTRUCTION COSTS, HEALTH NEEDS, HEALTH SERVICES, INTERIOR SPACE, STUDY FACILITIES

THIS REPORT CONSIDERS PROBLEMS AND SOLUTIONS RELATED TO THE DESIGN AND ESTABLISHMENT OF COLLEGE HEALTH FACILITIES. THIS INCLUDES THE RESULTS OF A STUDY INVOLVING COLORADO, KNOX, AND WITTENBERG COLLEGES IN WHICH PERSONAL VISITS AND EXPERT TESTIMONY CONCLUDED THAT THE HEALTH SERVICES OF SMALL COLLEGES IN THE CENTRAL AND WESTERN STATES WERE SERIOUSLY INADEQUATE. A PROTOTYPE SOLUTION WAS DEVELOPED BY THE ARCHITECTURAL FIRM, CAUDILL, ROWLETT, AND SCOTT OF HOUSTON, TO MEET THE NEEDS OF SMALL INDEPENDENT LIBERAL ARTS COLLEGES. SPECIFIC CONSIDERATIONS INCLUDED (1) INTERNAL EXPANSION AND FLEXIBILITY, (2) STUDY AND RECREATIONAL FACILITIES, AND (3) SUPERVISION AND SPACE RELATIONSHIPS. THIS SOLUTION CONSISTED OF A CIRCULAR BUILDING, WITH PATIENT ROOMS ON THE PERIMETER AND A RAISED CENTRAL NURSING STATION, WITH AUXILIARY WAITING AND TREATMENT ROOMS AND AN ATTACHED NURSES RESIDENCE. AN IMPORTANT FEATURE WAS THE PROVISION OF STUDY SPACE WHICH COULD BE REPLACED WITH EMERGENCY BEDS. THE PROTOTYPE IS INTENDED AS A LOW COST COMBINATION CLINIC AND INFIRMARY. SPECIFICATIONS, LAYOUTS, AND ELEVATIONS ARE GIVEN WITH THE SUPPORTING DESIGN ANALYSIS. THIS DOCUMENT IS AVAILABLE FROM THE EDUCATIONAL FACILITIES LABORATORIES, 477 MADISON AVENUE, NEW YORK 22, NEW YORK. (MM)

ACOUSTICAL ENVIRONMENT OF SCHOOL BUILDINGS

BY- FITZROY, CARIEL AND REID, JOHN LYON
EDUCATIONAL FACILITIES LABORATORIES, INC., NEW YORK, N. Y.

PUBLISHED- 63
IN- TECHNICAL REPORT I

128 PAGES

DESCRIPTORS- *ACOUSTICAL ENVIRONMENT, *EDUCATIONAL ENVIRONMENT,
*ENVIRONMENTAL CRITERIA, *PHYSICAL ENVIRONMENT, *PERFORMANCE
CRITERIA, CLASSROOM RESEARCH, EDUCATIONAL SPECIFICATIONS,
ENVIRONMENTAL RESEARCH, EXPERIMENTAL SCHOOLS, FLEXIBLE
CLASSROOMS, MULTIPURPOSE CLASSROOMS, RESEARCH, SCHOOL DESIGN,
SCHOOL PLANNING

A FIELD STUDY WAS MADE OF THE ACOUSTICAL ENVIRONMENT OF SCHOOLS DESIGNED FOR INCREASED FLEXIBILITY TO MEET THE SPATIAL REQUIREMENTS OF NEW TEACHING METHODS. THE OBJECT OF THE STUDY WAS TO DEFINE ALL THE CRITERIA FOR THE ACOUSTICAL DESIGN OF THIS TYPE OF CLASSROOM INCLUDING THE DETERMINATION OF--(1) MINIMUM ACOUSTICAL SEPARATION REQUIRED FOR EFFECTIVE GROUP AND INDIVIDUAL WORK, (2) TOLERABLE SOUND LEVELS, AND (3) OBJECTIONAL TYPES OF SOUNDS. THE RESULTING DATA WERE INTENDED AS A GUIDE FOR ARCHITECTS, ENGINEERS, ACOUSTICAL CONSULTANTS, AND EDUCATORS. QUESTIONNAIRES DEALING WITH THE AURAL ENVIRONMENT OF THEIR SCHOOLS WERE SENT TO TEACHERS IN THIRTY-SEVEN SCHOOLS IN ALL PARTS OF THE COUNTRY. TEAMS OF ACOUSTICAL CONSULTANTS THEN ANALYZED EACH SCHOOL TO ACCURATELY DETERMINE NOISE REDUCTION, REVERBERATION, SPEECH INTERFERENCE LEVEL AND ARTICULATION INDEX. THE COLLECTED DATA, DISCUSSION, AND CONCLUSIONS ARE PRESENTED FOR EACH SCHOOL STUDIED. THIS DOCUMENT IS AVAILABLE FROM THE EDUCATIONAL FACILITIES LABORATORIES, 477 MADISON AVENUE, NEW YORK 22, NEW YORK. (JT)

EDUCATIONAL FACILITIES WITH NEW MEDIA

BY- GREEN, ALAN C.

NATIONAL EDUCATION ASSOCIATION, WASHINGTON, D.C., DEPARTMENT OF
AUDIOVISUAL INSTRUCTION

PUBLISHED- 66

237 PAGES

DESCRIPTORS- *AUDIOVISUAL AIDS, *BUILDING DESIGN, *EDUCATIONAL PROGRAMS, *FACILITY UTILIZATION STUDY, *PLANNING, ACOUSTICAL ENVIRONMENT, CLASSROOM FURNITURE, CURRICULUM PLANNING, EDUCATION EQUIPMENT, EDUCATIONAL TELEVISION, ENVIRONMENTAL CRITERIA, FLEXIBLE FACILITIES, FURNITURE ARRANGEMENT, LIGHTING, PHYSICAL ENVIRONMENT, PROGRAM PLANNING, PROJECTION EQUIPMENT, SCHEDULING

THIS STUDY REPORTS THE PLANNING NECESSARY TO IMPLEMENT NEW MEDIA INTO AN EDUCATIONAL PROGRAM INCLUDING GUIDES FOR POLICY MAKERS, DESIGN PROFESSIONS AND TECHNICAL SPECIALISTS. THE IMPLEMENTATIONS OCCUR IN THREE AREAS--(1) ADMINISTRATION AND STAFF, (2) SCHOOL ARCHITECTURE, AND (3) CLASSROOM EQUIPMENT. ADMINISTRATIVE PLANNING IS CONCERNED WITH SCHEDULING IN RESPECT TO GROUPING, TIME, AND CURRICULA FOR EQUIPMENT AND COMPATIBLE SPACE, INCORPORATING MEDIA AS AN INTEGRAL PART OF CURRICULUM, ACCOUNTING FOR CONTINUAL UPDATING OF HARDWARE AND EQUIPMENT, SURVEYING TO DETERMINE PRESENT AND FUTURE SCHOOL AUDIOVISUAL NEEDS, COORDINATING EDUCATIONAL SPECIFICATIONS WITH AN ARCHITECTURAL PROGRAM AND GENERALLY PROVIDING ENCOURAGEMENT TO THE STAFF TO USE THE EQUIPMENT AVAILABLE. THE STAFF IS ENCOURAGED TO USE THE MEDIA AS AN ADJUNCT FOR INCREASING THEIR EFFICIENCY AND EFFECTIVENESS IN THE CLASSROOM. TYPES OF FACILITIES WITH MEDIA TO BE CONSIDERED BY THE DESIGN PROFESSIONS ARE--(1) INDEPENDENT STUDY, (2) SMALL-GROUP, (3) MEDIUM-GROUP, (4) LARGE-GROUP, (5) FLEXIBLE-GROUP, (6) RENOVATED CLASSROOMS, (7) RESOURCE FACILITIES, (8) PRODUCTION-SUPPORT FACILITIES AND (9) NEW BUILDING TYPES. CLASSROOMS NEED TO BE PROVIDED WITH THE BASIC AUDIOVISUAL EQUIPMENT TO WHICH COMPONENTS CAN BE ADDED. CLASSROOM FURNITURE MUST BE APPROPRIATE FOR THE TYPE OF AUDIOVISUAL EQUIPMENT USED AND BE PLACED RELATIVE TO THE VIEWING SURFACE. HARDWARE, I. E., PROJECTORS, SCREENS AND SPEAKERS MUST BE COMPATIBLE WITH THE ENVIRONMENTAL FACTORS OF LIGHTING AND ACOUSTICS. THIS DOCUMENT IS ALSO AVAILABLE FROM THE NATIONAL EDUCATION ASSOCIATION, 1201 SIXTEENTH STREET, N.W., WASHINGTON, D.C. 20036, STOCK NO. 071-02302, SINGLE COPY PRICE \$4.50. DISCOUNTS--10 PERCENT ON 2-9 COPIES - 20 PERCENT ON 10 OR MORE COPIES. (GM)

SCSD, AN INTERIM REPORT

EDUCATIONAL FACILITIES LABORATORIES, INC., NEW YORK, N. Y.

PUBLISHED- 65

038 PAGES

DESCRIPTORS- *COMPONENT SYSTEM, *BUILDING COMPONENTS, *SYSTEM COMPONENTS, FLEXIBILITY, MOVABLE PARTITIONS

THE PAST TWO DECADES HAVE BEEN WITNESS TO BROAD CHANGE IN TEACHING TECHNIQUE AND PURPOSE. SCHOOL BUILDING NEEDS HAVE BEEN COMPOUNDED BY MUSHROOMING PUPIL POPULATIONS AND INCREASING CONSTRUCTION COSTS. THE E. F. L. THROUGH ITS SCHOOL CONSTRUCTION SYSTEMS DEVELOPMENT STUDY HAS BEEN TRYING TO RESOLVE THE SCHOOL PLANT ENIGMA OF CHANGING CURRICULUM AND TECHNIQUE NEEDS WHILE DOVETAILING RISING COSTS AND PUPIL ENROLLMENTS. INTRODUCING THE BRITISH COMPONENT APPROACH OF STANDARDIZED SIZES AND PERFORMANCE SPECIFICATIONS DEVELOPED BY SCHOOL AUTHORITIES, LOWER BUILDING PRICES HAVE BEEN ACHIEVED IN SOME CALIFORNIA STUDY SCHOOLS BECAUSE OF MANUFACTURING VOLUME. VOLUME PERMITS DEVELOPMENT OF PRODUCTS SPECIFICALLY FOR SCHOOLS AT A COST FAVORABLE TO MANUFACTURER, TAXPAYER, AND SCHOOL USERS. CRITICAL TO BUILDING FLEXIBILITY WAS THE CEILING SERVICE SANDWICH ACCOMMODATING HEAT, LIGHT, AND VENTILATION SYSTEMS, THEMSELVES DEMOUNTABLE AND MOVEABLE. AS THESE VITAL SYSTEMS DID NOT PROTRUDE FROM THE CEILING, FOLDING PARTITIONS COULD BE DEMOUNTED AND RELOCATED WITHIN THE BUILDING IN A SHORT SPAN OF TIME. INSTRUCTIONAL AREAS COULD BE EASILY VARIED AS NEEDS CHANGED.

ENVIRONMENT FOR LEARNING (A RESEARCH STUDY IN SECONDARY SCHOOL DESIGN)

GOLEMCA AND RULFE, ARCHITECTS ENGINEERS HOUSTON, TEXAS

PUBLISHED-FEB60
IN- FORM NO. AC 489

023 PAGES

DESCRIPTORS- *BUILDING DESIGN, *CONTROLLED ENVIRONMENT, *FLEXIBLE FACILITIES, *SPACE RELATIONSHIPS, *WINDOWLESS SPACE, BUILDING INNOVATION, BUILDING OPERATION, COMPARATIVE ANALYSIS, CONSTRUCTION COSTS, DESIGN NEEDS, SECONDARY SCHOOLS

A STUDY OF THE SCHOOL ENVIRONMENT AND THE PREPARATION OF A MODEL DESIGN SOLUTION HAS BEEN CONDUCTED BY AN ARCHITECTURAL FIRM. THE SOLUTION USED DATA FROM AN EXISTING COMPARISON SCHOOL IN THE REDESIGN OF THE EDUCATIONAL FACILITY BASED ON THE INDEPENDENT CONTROL OF THE INTERNAL ENVIRONMENT AND THE ELIMINATION OF CLASSROOM WINDOWS. THIS APPROACH ALLOWED THE REDISTRIBUTION OF SPACE AND FACILITIES WITHIN THE BUILDING PROVIDING A GREATER FLEXIBILITY AND ECONOMIES IN COST, SPACE, AND TRAVEL TIME, AS WELL AS A MORE EFFECTIVE ENVIRONMENTAL CONTROL. THE MODEL SOLUTION HAS COMPARED WITH THE EXISTING SCHOOL IN TERMS OF (1) SITE USE, (2) FLOOR PLAN, (3) CONSTRUCTION COSTS, AND (4) OPERATING COSTS. THE SOLUTION ALSO INCLUDES SPECIFIC CONSIDERATIONS OF (1) ENTRANCES, (2) CORRIDORS, (3) FLEXIBLE CLASSROOMS, AND (4) ENGINEERING FACTORS. (DM)

SCHOOL CONSTRUCTION SYSTEMS DEVELOPMENT PROJECT

BY- BOICE, JOHN AND EHRENKRENTZ, EZRA AND MAC CONNELL, JAMES
NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION, EAST LANSING,
MICHIGAN

PUBLISHED- 65
IN- PROCEEDINGS OF THE FORTY-FIRST ANNUAL MEETING, HOUSTON,
TEXAS, OCT. 64

OC9 PAGES

DESCRIPTORS- *EDUCATIONAL SPECIFICATIONS, *PREFABRICATION,
*SCHOOL CONSTRUCTION, *SCHOOL PLANNING, *SPACE UTILIZATION,
ACOUSTICAL ENVIRONMENT, BUILDING DESIGN, BUILDING INNOVATION,
CURRICULUM PLANNING, FIRE PROTECTION, FLEXIBLE CLASSROOMS,
HEATING, ILLUMINATION, INTERIOR SPACE, MOVABLE PARTITIONS,
VENTILATION

ONE HUNDRED MANUFACTURERS EXPRESSED INTEREST IN BIDDING FOR
A SYSTEM OF SCHOOL CONSTRUCTION CALLED SCSD OR SCHOOL
CONSTRUCTION SYSTEMS DEVELOPMENT TO THE FIRST CALIFORNIA
COMMISSION ON SCHOOL CONSTRUCTION SYSTEMS. TWENTY-TWO BUILDINGS
COMPRISED THE PROJECT. THE OBJECTIVE WAS TO DEVELOP AN INTEGRATED
SYSTEM OF STANDARD SCHOOL BUILDING COMPONENTS THAT WAS ADAPTABLE,
ECONOMICALLY FEASIBLE, AND TIME-SAVING. THE USE OF STANDARD
COMPONENTS TO BUILD NONSTANDARD BUILDINGS WAS A NEW CONCEPT.
INDUSTRY DEVELOPED THE SYSTEM ON PERFORMANCE SPECIFICATIONS
DEVELOPED BY EFL. HOWEVER, THE COMPONENTS WERE NOT ALWAYS
COMPATIBLE. THE PURPOSE WAS TO IMPLEMENT EDUCATIONAL DEVELOPMENTS
BY GIVING THE EDUCATOR FLEXIBILITY IN THE PLANNING AND
UTILIZATION OF SCHOOL BUILDINGS. THIS REQUIRED (1) LONG SPANS TO
GENERATE LARGE AREAS OF SPACE, AND (2) ECONOMICALLY MOVABLE
PARTITIONS. LIGHTING AND VENTILATING SYSTEMS HAD TO BE DESIGNED
SO AS TO FULFILL VARIATION DUE TO FLEXIBLE SPACE ARRANGEMENTS
NECESSITATED BY CHANGING CURRICULA. EXAMPLES OF PERFORMANCE
SPECIFICATIONS EXPRESSED IN NUMERICAL QUANTITIES ARE GIVEN. THE
TOTAL CONCEPT PROVIDES FOR AN INFINITE VARIETY OF BUILDINGS. THE
STRUCTURAL-LIGHTING CEILING SYSTEM PROVIDES (1) SOURCE OF
ILLUMINATION, (2) FINISHED CEILING OR SOFFIT, (3) CEILING SOUND
ABSORPTION, (4) SOUND ATTENUATION BETWEEN ROOMS, (5) FIRE
PROTECTION FOR THE STEEL STRUCTURE, (6) SUPPORT FOR DEMOUNTABLE
PARTITIONS, AND (7) SUPPLY AND RETURN AIR DEVICES. THE UNIT FOLDS
FLAT FOR SHIPPING. THIS SYSTEM IS A STRUCTURAL TECHNIQUE FOR
SCHOOL BUILDINGS THAT UTILIZES THE INHERENT STRUCTURAL PROPERTIES
OF A STEEL ROOF DECK. IT DOES NOT INCLUDE THE EXTERIOR WALLS.
CEILING SYSTEM DIAGRAMS ARE PROVIDED. (RK)

THE DEVELOPMENT OF THE TEACHING SPACE DIVIDER

BY- CAUDILL, WILLIAM W. AND BELLUMY, CLEON C.
CAUDILL, ROWLETT, SCOTT, AND ASSOCIATES ARCHITECTS-ENGINEERS
BRYAN, TEXAS

IN- RESEARCH REPORT, 1

006 PAGES

DESCRIPTORS- *MOVABLE PARTITIONS, *PREFABRICATION, *SPACE
DIVIDERS, *TEACHING METHODS, *VERTICAL WORK SURFACES,
CHALKBOARDS, CONSTRUCTION COSTS, DISPLAY PANELS, TACKBOARDS

TYPES OF VERTICAL WORK SURFACES AND THE DEVELOPMENT OF A
MODEL TEACHING SPACE DIVIDER ARE DISCUSSED IN THIS REPORT. THIS
DESIGN IS BASED ON THE EXPRESSED NEED FOR MORE TACKBOARD AND
SHELVING SPACE, AND FOR MOVABLE PARTITIONS. THE MODEL PANELS
WHICH SERVE DIRECTLY AS PARTITIONS RATHER THAN BEING OVERLAID ON
A PLASTERED SURFACE, INCLUDE THE FOLLOWING FUNCTIONS--(1) SERVING
AS UNITS TO DIVIDE SPACE, (2) SERVING AS VERTICAL WORK SURFACES,
AND (3) FACILITATING EASY INTERIOR CHANGES. FOUR TYPES OF
SURFACE, PREFABRICATED ON A FOUR BY EIGHT FOOT MODULE, INCLUDE
--(1) CHALKBOARD PANELS, PROVIDING A LARGE-SCALE WRITING AND
DRAWING SURFACE, (2) DOWEL PANELS, PROVIDING SHELF AND EASEL
SPACE, (3) TACKBOARDS, PROVIDING A FULL WALL AREA DISPLAY SPACE,
AND (4) PERFORATED PANELS, PROVIDING AN ACOUSTIC AND VERSATILE
HANGING SURFACE. PANELS ARE MOUNTED DIRECTLY ON STUDS AND MAY BE
DEMOUNTED AND INTERCHANGED AS NEEDED. THIS SOLUTION IS ECONOMICAL
AND SAVES OFTEN WASTED WALL SPACE. (DM)

AN ANALYSIS OF TWO MULTI-PURPOSE CORRIDOR TYPES

BY- HARRIS, AL AND CAUDILL, WILLIAM W.
CAUDILL, RGWLETT, SCOTT AND ASSOCIATES ARCHITECTS-ENGINEERS
BRYAN, TEXAS

IN- RESEARCH REPORT, 4

006 PAGES

DESCRIPTORS- *CLASSROOMS, *DESIGN, *SCHOOL ARCHITECTURE, *SCHOOL
SPACE, *PLANNING, BUILDING DESIGN, ELEMENTARY SCHOOLS,
MULTI-PURPOSE CLASSROOMS, SCHOOL DESIGN, SCHOOL PLANNING

THE MULTI-USE CORRIDOR PROVIDES MAXIMUM UTILIZATION OF SPACE
THROUGH REDUCED CONSTRUCTION COSTS. ACCORDING TO THE REPORT THE
TWO TYPES OF MULTI-USE CORRIDORS, SINGLE-LOADED AND DOUBLE
LOADED, ARE EDUCATIONALLY PRACTICAL AND FUNCTIONAL. THE DOUBLE
LOADED CORRIDOR MAY BE USED FOR GENERAL SCHOOL ACTIVITIES, THE
SINGLE-LOADED CORRIDOR MAY BE USED FOR EXPANDED CLASSROOM
ACTIVITIES.

DOMES FOR SCHOOLS

BY- NYE, EDWARD F.
CAUDILL, ROWLETT, SCOTT AND ASSOCIATES ARCHITECTS-ENGINEERS
IRVING, TEXAS

PUBLISHED- 58
IN- RESEARCH REPORT, 11

004 PAGES

DESCRIPTORS- *BUILDING MATERIALS, *CONSTRUCTION (PROCESS),
*FLEXIBLE FACILITIES, *SCHOOL DESIGN, *STRUCTURAL BUILDING
SYSTEMS, AUDITORIUMS, BUILDING INNOVATION, CLASSROOMS,
GYMNASIUMS, SPACE DIVIDERS

THE NEED FOR FLEXIBLE BUILDINGS WITH MOVABLE PARTITIONS AND
COLUMN-FREE SPACE, LEADS TO THE POSSIBILITIES OF USING STRUCTURAL
MATERIALS IN A FORM WHICH WILL ELIMINATE BENDING, USING THEIR
STRENGTH MORE EFFICIENTLY BY KEEPING THE STRESSES IN A SIMPLE
TENSION OR COMPRESSION. THIS POINTS DIRECTLY TO THE USE OF SOME
KIND OF DOME. THE DEVELOPMENT OF THE DOME IS TRACED THROUGH
HISTORY TO THE PRESENT, WITH ACTUAL EXAMPLES OF CURRENTLY
DESIGNED--(1) AUDITORIUMS, (2) AIR TERMINALS, (3) FIELD HOUSES,
(4) GYMNASIUMS, (5) CHURCHES, (6) COLISEUMS, AND (7) GEODESIC
SPACE FRAMES. SPECIFIC DISCUSSION IS GIVEN FOR DOMES USED IN
DESIGNING TEACHING SPACE, PARTICULARLY CLASSROOMS, USING SPACE
DIVIDERS AND DOME CLUSTERS. THIS IS RELATED TO THE NEED FOR FLUID
EDUCATIONAL PROGRESS. PHOTOGRAPHS SHOW CURRENT EXAMPLES OF DOME
CONSTRUCTION. (MM)

APPROACH TO A UNIVERSITY LIBRARY DESIGN

BY- KRENITSKY, MICHAEL V.
CAUDILL, ROWLETT, SCOTT AND ASSOCIATES ARCHITECTS-ENGINEERS
BRYAN, TEXAS

PUBLISHED- 58
IN- RESEARCH REPORT, 13

014 PAGES

DESCRIPTORS- *LIBRARY SERVICES, *LIBRARY STANDARDS, *PHYSICAL
DESIGN NEEDS, *SPACE UTILIZATION, *UNIVERSITY LIBRARIES,
AUDIOVISUAL INSTRUCTION, CONTROLLED ENVIRONMENT, EDUCATIONAL
PHILOSOPHY, FLEXIBLE FACILITIES, PLANNING, SPACE RELATIONSHIPS

DISCUSSES THE CONSIDERATIONS INVOLVED IN THE DESIGN OF A
UNIVERSITY LIBRARY SHOWING HOW ONE FIRM IN COMPETITION APPROACHED
THE PROBLEM ON A PREDETERMINED SITE. CONSIDERATIONS ARE (1)
DEFINITION OF THE EDUCATIONAL AIMS AND PHILOSOPHY OF THE
INSTITUTION, (2) RELATING THE FUNCTIONS OF TEACHING AND RESEARCH
PROGRAMS TO THE LIBRARY, (3) PRESCRIBING THAT FORM FOLLOWS
FUNCTION, AND (4) ANALYZING ALL THE ACTIVITIES USING SPACE. THE
PROCEDURE IS TO (1) SURVEY THE LITERATURE, (2) DEFINE THE PLACE
OF THE LIBRARY IN THE UNIVERSITY, (3) INSPECT NEW LIBRARY
FACILITIES, (4) BECOME FAMILIAR WITH SPECIAL SITE PROBLEMS, AND
(5) DEVELOP PREMISES FOR PLANNING A UNIVERSITY LIBRARY. THE
REPORT PRESENTS IN DETAIL THE CHARACTERISTICS OF THE LIBRARY
WHICH ARE ITS FUNCTIONS, CLIENTELE, AND OPERATIONS. EDUCATIONAL
EFFICIENCY IS DISCUSSED WITH REGARDS TO (1) OPEN SHELVES, (2)
LABORATORY SITUATIONS, (3) AUDIO-VISUAL SERVICES, (4) DIVISIONAL
ORGANIZATION OF COLLECTION, (5) GENERAL EDUCATION PROVISIONS, AND
(6) FUNCTIONAL BUILDINGS. SITE CONSIDERATIONS AND PREMISES FOR
FUNCTIONAL PLANNING ARE DESCRIBED. THEIR SOLUTION CENTERED AROUND
(1) THE SERVICE AREA, (2) CONTROLS, (3) STACK AREA, (4) PROVISION
FOR UNDERGRADUATES, AND (5) FLEXIBILITY. INCLUDED IS A LIST OF
SELECTED REFERENCES ALONG WITH DIAGRAMS, SKETCHES, AND CHARTS.
(RK)

THE SPACE STAGE, FAD OR FUTURE

BY- DE CHAINE, FABER

PUBLISHED-MAY66

IN- AMERICAN SCHOOL BOARD JOURNAL, MAY 1966

7 PAGES

DESCRIPTORS- *AUDITORIUMS, *EQUIPMENT, *FLEXIBLE FACILITIES, *THEATERS, AUDIOVISUAL INSTRUCTION, CONSTRUCTION COSTS, MUSIC ACTIVITIES, THEATER ARTS

DISSATISFACTION WITH THE PROSCENIUM ARCH THEATRE, THE NEED FOR ECONOMY IN PUBLICLY-FINANCED STRUCTURES, AND THE ADVANTAGES OF INTIMATE THEATRE, HAVE LED TO THE DEVELOPMENT OF THE SPACE STAGE, WHICH PROJECTS INTO THE AUDITORIUM AND IS SURROUNDED ON THREE SIDES BY SEATING. THE SPACE STAGE CONCEPT IS USED IN THIS EXAMPLE TO PROVIDE A PERFORMING ARTS FACILITY IN CONJUNCTION WITH A NEW CAMPUS HIGH SCHOOL. THE SOLUTION CONTAINS A 400 SEAT THEATER WITH TWO 200-SEAT AUDITORIUMS SEPARATED BY MOVABLE PANELS, DESIGNED SO THAT CLASSES COULD BE HELD IN THE TWO SMALLER AUDITORIUMS. DESIGN OF THE SEATING INCLUDES CONSIDERATION OF--(1) AISLE AND SEATING ORIENTATION, (2) CONTROL OF STAGE LIGHTING, (3) VISUAL ANGLES, AND (4) ACOUSTICS. THE TREATMENT OF THE STAGE CONSIDERS--(1) ABSORBANCE, (2) REFLECTION, (3) FLEXIBILITY, AND (4) SPEAKER PLACEMENT. TECHNICAL FACILITIES INCLUDE--(1) A SIDE TRACK SYSTEM FOR SCENERY, (2) ROLLING TOWERS FOR STAGE WORK, AND (3) A WALL SHOP. GRAPHICS INCLUDE PHOTOGRAPHS OF THE THEATRE AND BACKSTAGE AREA, AND DIAGRAMS OF THE PLAN AND ELEVATION. THIS ARTICLE APPEARED IN THE MAY, 1966, ISSUE OF THE AMERICAN SCHOOL BOARD JOURNAL. COPIES MAY BE OBTAINED BY WRITING THE EDITOR, AMERICAN SCHOOL BOARD JOURNAL, BRUCE PUBLISHING CO., 400 N. BROADWAY, MILWAUKEE, WISCONSIN. (MM)

MATERIALS FOR MODERNIZATION

BY- JACKSON, R. GRAHAM
HOUSTON UNIVERSITY, TEXAS

PUBLISHED- 61

007 PAGES

DESCRIPTORS- *BUILDING IMPROVEMENT, *BUILDING MATERIALS,
*CEILINGS, *FLOORS, *SPACE DIVIDERS, ACOUSTICAL ENVIRONMENT,
BUILDING OBSOLESCENCE, FLEXIBLE FACILITIES, PHYSICAL DESIGN
NEEDS, PSYCHOLOGICAL DESIGN NEEDS

CHOICES AND ISSUES IN SELECTING MATERIALS FOR MODERNIZATION
OF SCHOOL BUILDINGS ARE DISCUSSED IN THIS REPORT. BACKGROUND
INFORMATION IS INTRODUCED IN TERMS OF REASONS FOR ABANDONMENT,
THE CAUSES AND EFFECTS OF SCHOOL BUILDING OBSOLESCENCE, AND
PROBLEMS IN THE MODERNIZATION PROCESS. INTERIOR PARTITIONS ARE
DISCUSSED IN TERMS OF BUILDING MATERIALS, SURFACE TREATMENT, AND
CONSTRUCTION COSTS. CRITERIA FOR FLOORING INCLUDE MATERIALS AND
MAINTENANCE, AND FUNCTIONAL PROPERTIES OF MATERIALS. CEILINGS ARE
MENTIONED WITH RESPECT TO FINISHING MATERIALS, ACOUSTICS AND
REVERBERATION CONTROL, AND INSULATION. GENERAL COMMENTS ARE
INCLUDED ON PLANNING FOR MODERNIZATION. (MM)

HOW TO BUILD A SCHOOL YOUR NEXT SUPERINTENDENT CAN USE

BY- MAFFEO, ALFRED A.

PUBLISHED-MAR64

IN- SCHOOL MANAGEMENT, MARCH 1964

007 PAGES

DESCRIPTORS- *JUNIOR HIGH SCHOOLS, *SCHOOL DESIGN, ADMINISTRATION, BUILDING DESIGN, DESIGN, HOUSE PLAN, LIBRARY, SCHOOL CONSTRUCTION, SCHOOL LIBRARY, MIDDLE SCHOOLS, MOVABLE PARTITIONS

SCHOOL BUILDINGS DESIGNED TO LAST 50 YEARS MUST PROVIDE FOR FLEXIBILITY TO PERMIT FULL USE NO MATTER HOW DRASTICALLY EDUCATIONAL POLICIES CHANGE OR HOW OFTEN SUPERINTENDENTS CHANGE. A JUNIOR HIGH SCHOOL IN NATICK, MASSACHUSETTS HAS BEEN DESIGNED IN SUCH A WAY. A HOUSE PLAN SEPARATED STUDENTS INTO WINGS BUT THE DESIGN PERMITS THE SINGLE BUILDING PLAN. ADMINISTRATIVE OFFICES IN EACH HOUSE CAN EASILY BE CONVERTED TO SEMINAR ROOMS. SEPARATE DINING ROOMS MAKE IT POSSIBLE TO HAVE SMALLER AREAS WHICH ARE MORE USABLE FOR OTHER ACTIVITIES. A CENTRAL LIBRARY IS BUILT SO GROWTH OF SERVICE IS POSSIBLE. SEVERAL CLASSROOMS ARE BUILT SO PARTITIONS CAN BE MOVED FOR TEAM TEACHING. THE AUDITORIUM CAN BE SEPARATED INTO THREE SMALLER LECTURE HALLS. A COMPUTER PROGRAM CALLED GASP FOR GENERALIZED ACADEMIC SIMULATION PROGRAMS WAS USED TO CHECK SPACE UTILIZATION. RESULTS SHOWED AN 850/0 UTILIZATION FACTOR. THE COST OF THIS BUILDING WAS \$17.23 PER SQUARE FOOT.

SCHOOL LIGHTING

GENERAL ELECTRIC, CLEVELAND, OHIO

PUBLISHED-SEP64

016 PAGES

DESCRIPTORS- *ECONOMICS, *ILLUMINATION LEVELS, *LIGHTING, *SCHOOL ENVIRONMENT, *VISUAL ENVIRONMENT, ATHLETICS, AUDITORIUMS, AUDIOVISUAL AIDS, CLASSROOMS, CORRIDORS, MULTIPURPOSE CLASSROOMS, SAFETY, TELEVISION

THIS REPORT DEALS WITH PLANNING FOR EFFECTIVE LIGHTING IN SCHOOLS. TOPICS DISCUSSED ARE--(1) ECONOMICS, (2) ELECTRICAL SPACE CONDITIONING, (3) DEVELOPING THE VISUAL ENVIRONMENT, (4) BRIGHTNESS RELATIONSHIPS, (5) LEVELS OF ILLUMINATION, (6) IMPROVED LAMPS, (7) QUALITY IN LIGHTING, (8) LUMINARIES AND VISUAL COMFORT, (9) THE VISUAL COMFORT INDEX, AND (10) CAUSES AND REDUCTION OF CEILING REFLECTIONS. SECTIONS ARE ALSO INCLUDED ON LIGHTING IN CLASSROOMS, FOR AUDIOVISUAL AIDS, FOR TELEVISION IN THE CLASSROOM, FOR AUDITORIUMS AND MULTI-PURPOSE ROOMS, FOR INDOOR AND OUTDOOR SPORTS, FOR CORRIDORS, AND FOR NIGHTTIME PROTECTION OF PEOPLE AND PROPERTY. PHOTOGRAPHS, CHARTS, AND DIAGRAMS ACCOMPANY THE TEXT. (RK)

IMPLICATIONS OF NEW MEDIA FOR SPACE AND BUILDING DESIGN

BY- CHRISTIANSEN, KENNETH A.
NATIONAL CCUNCIL ON SCHOOLHOUSE CONSTRUCTION

PUBLISHED-OCT61
IN- PROCEEDINGS OF THE N.C.S.C. THIRTY-EIGHTH ANNUAL MEETING,
ATLANTA, GEORGIA, OCT., 1961

CO8 PAGES

DESCRIPTORS- *AUDIOVISUAL AIDS, *CONTROLLED ENVIRONMENT, *DESIGN
NEEDS, *INSTRUCTIONAL TELEVISION, *SCHOOL PLANNING, ACOUSTICAL
ENVIRONMENT, EQUIPMENT UTILIZATION, FLEXIBLE FACILITIES,
ILLUMINATION, SPACE UTILIZATION, VENTILATION

THE EXPANDING ROLE OF EDUCATIONAL TELEVISION AND OTHER
INSTRUCTIONAL AIDS AND MEDIA IN THE LEARNING MEDIA IS DISCUSSED
IN TERMS OF APPROPRIATE SPACE DESIGN AND SPACE UTILIZATION. THREE
AREAS ARE IDENTIFIED IN THE NEW MEDIA--(1) PROJECTION DEVICES,
(2) NONPROJECTION DEVICES, AND (3) TELEVISION. ARCHITECTURE AND
DESIGN CONCERNS ARE DEFINED AS--(1) STUDENT RELATIONSHIPS TO THE
AIDS AND MEDIA, AND (2) PRODUCTION, DISTRIBUTION, ORIGINATION,
RECORDING (AUDIO OR VIDEOTAPE), AND STORING FUNCTIONS AS THEY
APPLY TO THE SEVERAL MEDIA. TOPICS MENTIONED INCLUDE, SPECIFIC
USES FOR THE NEW MEDIA, AND THE USE OF FUNCTIONAL VALUE OF SPACE,
LIGHT, ACOUSTICS, AND CLIMATE. SPECIAL CONSIDERATIONS ARE GIVEN
IN CONNECTION WITH TELEVISION--(1) PRODUCTION AND RECEIVING
AREAS, (2) CLOSED OR OPEN CIRCUITS, (3) SPACE FOR PERSONNEL,
EQUIPMENT, AND CONTROLS. ITEMS MENTIONED ARE INTENDED AS A CHECK
LIST TO GUIDE PLANNING AND DESIGNING SPACE FOR FUNCTION AND USE
ON NEW MEDIA. (MM)

A SCHOOL FOR ALL SEASONS

STANFORD UNIVERSITY , CALIF, SCHOOL PLANNING LABORATORY

CC8 PAGES

DESCRIPTORS- *CONTROLLED ENVIRONMENT, *EDUCATIONAL CHANGE, *FLEXIBLE FACILITIES , *SPACE UTILIZATION, *WINDOWLESS SPACE, CURRICULUM DEVELOPMENT, ECONOMICS, EQUIPMENT, FLEXIBLE SCHEDULING, INTERIOR SPACE, LIGHTING, MOVABLE PARTITIONS, THERMAL ENVIRONMENT, SCHOOL CONSTRUCTION

DESCRIBES A HIGH SCHOOL IN CALIFORNIA INCORPORATING FLEXIBILITY TO ACCOMMODATE ALMOST ANY FORESEEABLE EDUCATIONAL CHANGE. STUDENTS MOVE IN THE MIDST OF A COMPACT ENVIRONMENT IN WHICH ALMOST EVERY SQUARE FOOT OF SPACE IS USABLE ACADEMIC SPACE. EACH DEPARTMENT SUBCOURT COMPLEX IS SITUATED SO AS TO BRING ALL STUDENTS INTO SOME CONTACT WITH ALL THE ACADEMIC DISCIPLINES SOMETIME DURING THE COURSE OF EACH DAY. THE NEARLY 2.5 MILLION CU. FT. INTERIOR IS CLOSED OFF FROM THE OUTSIDE BY SOLID WALL. SKYLIGHTS, A PROFUSION OF PLANTINGS, AND CO-ORDINATED COLORS WITH COLOR ACCENTS ATTEMPT TO PROVIDE A BUILT-IN OUTDOOR ENVIRONMENT. THE STRUCTURAL FRAME IS OF REINFORCED PRESTRESSED CONCRETE. A 5-FOOT GRID IS THE BASIC MODULE USED THROUGHOUT THE BUILDING. ALL INTERIOR WALLS ARE NON-LOAD BEARING AND MADE UP OF DEMOUNTABLE DOUBLE STEEL PANELS. THE WALLS ARE INSTALLED UNDER A SUSPENDED CEILING PLENUM WHICH HOUSES THE UTILITIES AND ELECTRICAL WIRING. ACCORDION AND FOLDING WALLS ADD INSTANT FLEXIBILITY TO THE ARRANGEMENT POTENTIAL OFFERED BY THE DEMOUNTABLE STEEL PANELS. TEMPERATURE CONTROL IS ACHIEVED WITHOUT A CENTRAL HEATING SYSTEM. A FEW ELECTRICAL HEATING PANELS ARE SPOTTED IN CRITICAL AREAS. THE PRINCIPAL SOURCE OF HEAT DERIVES FROM THE BODY TEMPERATURE OF THE BUILDING INHABITANTS AND THE LIGHTING. CARPETING IS AN ESSENTIAL FEATURE OF THE OPEN PLAN CONCEPT. THE POTENTIAL OFFERED BY THIS FACILITY FOR FLEXIBLE SCHEDULING AND CURRICULUM EXPERIMENTATION IS ALMOST LIMITLESS. INCLUDES BUILDING AND CARPETING COSTS, PHOTOGRAPHS, AND FLOOR PLAN. (RK)

STATE OF NEW YORK STANDARD SCHOOL PLAN TYPE D-3, TWO-STORY JUNIOR
- SENIOR HIGH SCHOOL, 1000 EXPANDABLE TO 1200 PUPILS

URBAHN AND BRAYTON, ASSOCIATE ARCHITECTS

IN- REPORT- N.Y.S. STANDARD SCHOOL TYPE D-3

C49 PAGES

DESCRIPTORS- *FLEXIBLE CLASSROOMS, *HIGH SCHOOL DESIGN, *SCHOOL
LOCATION, SCHOOL CONSTRUCTION, SCHOOL EXPANSION, SCHOOL SPACE

PROGRAM EMPHASIS FOR THE DESIGN OF THIS FACILITY WAS
ORIENTED TOWARD CURRENT EDUCATIONAL CONCEPT. PRESENT AND
PROJECTED CHANGES IN--(1) TEACHING TECHNIQUES, (2) CURRICULUMS,
(3) STAFFING PATTERNS, AND (4) USE OF TECHNOLOGICAL AIDS
SUGGESTED DEVELOPMENT OF A FLEXIBLE CLASSROOM UNIT. THE RESULTANT
PLAN ACHIEVES FUNCTIONAL SEPARATION THROUGH GROUPING INTO 2 MAJOR
BLOCKS--(1) THE ACADEMIC, AND (2) GYMNASIUM-AUDITORIUM UNITS.
SEPARATION OF JUNIOR AND SENIOR HIGH STUDENTS IS NON-EXISTENT
EXCEPT FOR INDIVIDUAL ENTRANCES AND LOCKER LOCATIONS. INCLUDED AS
IMPORTANT PROJECT CONSIDERATIONS ARE--(1) EXPANSION PROVISIONS,
(2) CONSTRUCTION METHODS AND MATERIALS, (3) STRUCTURAL SYSTEMS,
(4) MECHANICAL SYSTEMS, (5) SITE ADAPTION DATA, AND (6)
SUGGESTIONS FOR ALTERNATE CONSTRUCTION BIDS. FLOOR PLANS,
PERSPECTIVES, AND CLASSROOM DIAGRAMS ARE INCLUDED. (MH)

SCME DEMOGRAPHIC FACTORS IN SCHOOLHOUSE CONSTRUCTION

BY- BEGGS, WALTER K.
NATIONAL COUNCIL ON SCHOOLHOUSE CONSTRUCTION, EAST LANSING,
MICHIGAN

PUBLISHED-OCT65
IN- PROCEEDINGS OF THE NCSC 42ND ANNUAL MEETING LINCOLN, NEBRASKA
OCTOBER 4-7, 1965

007 PAGES

DESCRIPTORS- *BUILDING DESIGN, *CURRICULUM, *DEMOGRAPHY RESEARCH,
*FLEXIBLE FACILITIES, *STUDENT MOBILITY

THE WRITER SPECULATED ABOUT FUTURE TRENDS AND NEEDS IN SCHOOLHOUSE CONSTRUCTION AS AFFECTED BY OBSOLESCENCE OF PRESENT PLANTS AND A GROWING SCHOOL POPULATION. FUTURE SCHOOLHOUSE CONSTRUCTION WILL BE COMPOUNDED BY MOBILITY OF OUR NATION'S POPULATION WHICH EXPERTS PREDICT WILL CAUSE THE DEVELOPMENT OF STRIP CITIES IN VARIOUS GEOGRAPHIC SECTIONS WHERE AS MUCH AS 90 PERCENT OF FUTURE SCHOOL POPULATIONS MAY RESIDE. THE AUTHOR ALSO PREDICTS A SHIFTING PATTERN OF EDUCATIONAL NEEDS WHICH WILL AFFECT FUTURE SCHOOLHOUSE DESIGN. CYBERNETICS IN INDUSTRY MAY CAUSE RE-EMPHASIS UPON THE NEED FOR LEISURE EDUCATION, OR COMPREHENSIVE CURRICULUMS MAY HAVE TO PROVIDE MORE DIVERSE, SPECIFIC LEARNING PROGRAMS. THE GROWING FUND OF KNOWLEDGE MAY HAVE TO BE CATALOGUED AND PROGRAMMED SO THAT IT CAN BE READILY RETRIEVED FROM COMPUTER LIBRARIES, AND INTRODUCED TO SMALL GROUPS OF PUPILS PERHAPS THROUGH TELEVISION MEDIA. SUCH TEACHING PROCEDURES MAY REQUIRE SCHOOLHOUSE DESIGN TO INCLUDE INDIGENOUS MODULES WHICH CAN BE DEMOUNTED AND RELOCATED READILY FOR VARYING INSTRUCTIONAL PURPOSES.

DIVISIBLE AUDITORIUMS

EDUCATIONAL FACILITIES LABORATORIES, NEW YORK, N. Y.

PUBLISHED-MAY66

52 PAGES

DESCRIPTORS- *ACOUSTICS, *AUDITORIUMS, *BUILDING DESIGN,
*EDUCATIONAL FACILITIES, *FLEXIBLE FACILITIES, *MOVABLE
PARTITIONS, *THEATERS, DESIGN NEEDS, COLLEGE BUILDINGS,
CONSTRUCTION NEEDS, SCHOOL BUILDINGS

BUILDING DESIGNS WHICH HAVE BEEN SIGNIFICANT IN THE DEVELOPMENT OF THE DIVISIBLE AUDITORIUM AND THEATER AND THE FUNDAMENTAL CONCEPTS OF THE MULTI-PURPOSE FACILITY WERE REVIEWED. WHILE NOT A COMPREHENSIVE COLLECTION OF DIVISIBLE FACILITIES, THE INSTALLATIONS REPORTED ON ARE THOSE THAT APPEAR TO BE LANDMARKS IN THE EVOLUTION OF THE MULTI-USE CONCEPT, AND NOT NECESSARILY THOSE THAT REPRESENT THE HIGHEST DEVELOPMENT OF A PARTICULAR APPROACH TO DIVISIBILITY. THE INSTALLATIONS REVIEWED RANGE FROM TEACHING AUDITORIUMS IN HIGH SCHOOLS TO MULTI-ARTS THEATERS AT A UNIVERSITY. IN ADDITION, A SECTION IS INCLUDED ON THE ACOUSTICS OF THE OPERABLE OR MOVABLE PARTITION WHICH IS OFTEN UTILIZED IN DIVISIBLE FACILITIES. COPIES OF THIS REPORT ARE AVAILABLE FROM EDUCATIONAL FACILITIES LABORATORIES, INC., 477 MADISON AVENUE, NEW YORK, N.Y. (BH)

HOW TO KEEP SCHOOL NOISE AT THE RIGHT LEVEL

BY- MC KAY, RONALD L.

PUBLISHED-OCT64

IN- THE NATIONS SCHOOLS, VOL. 74, NO. 4, OCTOBER, 1964

5 PAGES

DESCRIPTORS- *ACOUSTICS, *ACOUSTICAL ENVIRONMENT, *BUILDING MATERIALS, *PHYSICAL DESIGN NEEDS, *SCHOOL PLANNING, AUDIO EQUIPMENT, AUDITORIUMS, CLASSROOMS, FLEXIBLE FACILITIES, STRUCTURAL BUILDING SYSTEMS, THEATERS

DISCUSSES FACTORS TO BE CONSIDERED DURING SCHOOL PLANNING STAGES REGARDING NOISE LEVELS AND ACOUSTIC DESIGN IMPLICATIONS. FACTORS ARE--(1) A STAGE HOUSE IS DETRIMENTAL TO ORCHESTRAS, BANDS, CHORUSES, LECTURES, ASSEMBLIES, RECITALS, AND CERTAIN DRAMAS AND SPEECH-MUSIC PERFORMANCES. SUGGESTED IS AN AUDITORIUM WITH AUDIENCE AND PERFORMING PLATFORM WITHIN THE SAME SPACE AND UNDER THE SAME CONTINUOUS CEILING--AN OPEN STAGE, (2) STEEPLY SLOPED FLOORS IN AUDITORIUMS OR LECTURE HALLS PERMIT BETTER VIEWS AND HEARING--SHALLOW RAMP FORMS SHOULD BE AVOIDED, (3) GOOD REHEARSAL ROOMS FOR LARGE MUSICAL GROUPS MUST BE 15 FEET HIGH MINIMUM, AND PREFERABLE 20 FEET TO 25 FEET HIGH--THERE IS NO SUBSTITUTE FOR HEIGHT. SPEECH CLASSROOMS SHOULD BE ABOUT 30 FEET SQUARE BY 10 FEET HIGH. FLEXIBLE SPACE MUST BE CONSIDERED IN TERMS OF PROPORTIONS AND ACOUSTIC QUALITY, (4) CARPETING IN THE CLASSROOM OFTEN MAKES USE OF OTHER ACOUSTIC TREATMENT UNNECESSARY WHILE CUTTING DOWN ON FOOTFALL AND CHAIR SCRAPING NOISE. FULLY UPHOLSTERED CHAIRS IN AUDITORIUMS SHOULD ALSO BE CONSIDERED, (5) AUDITORIUMS OF 1000 SEATS OR MORE NEED A SOUND AMPLIFICATION SYSTEM PLANNED FROM THE ONSET WITH THE REST OF THE AUDITORIUM BEING ACCOMMODATED IN THE DESIGN AND INTEGRATED WITH THE ROOM'S ACOUSTICAL DESIGN, (6) ALL PARTS OF A CONSTRUCTION SYSTEM MUST BE WELL BALANCED FOR THE BEST ACOUSTIC ENVIRONMENT, (7) CONTROLLED AIR FLOW NOISE OR MASKING NOISE CAN BE USEFUL IN OFFICE, CLASSROOMS, AND SIMILAR SMALL SPACES, AND (8) ABSORPTIVE MATERIALS USED IN CLASSROOMS CAN BE MUCH THINNER THAN THOSE USED IN MUSIC ROOMS, AUDITORIUMS, AND SHOPS WHERE A MUCH THICKER ABSORPTIVE MATERIAL AND AIRSPACE IS REQUIRED. THIS ARTICLE APPEARED IN VOL. 74, NO. 4, OCTOBER, 1966, ISSUE OF THE NATION'S SCHOOLS. COPIES MAY BE OBTAINED BY WRITING TO THE EDITOR, THE NATION'S SCHOOLS, INC., MERCHANDISE MART PLAZA, CHICAGO, ILLINOIS. (RK)

WALLS WALLS WALLS WALLS THAT WORK

BY- LEGGETT, STANTON AND QUALLS, GEORGE

PUBLISHED-FEB63

IN- OVERVIEW, FEBRUARY, 1963

7 PAGES

DESCRIPTORS- *MOVABLE PARTITIONS, *MULTIPURPOSE CLASSROOMS, ARCHITECTURE, AUDITORIUMS, BUILDING DESIGN, BUILDING INNOVATION, EQUIPMENT DESIGN

BECAUSE OF CHANGING ENROLLMENTS AND TEACHING PRACTICES, MODERN SCHOOLS NEED THE FLEXIBILITY THAT CAN BE PROVIDED BY MOVABLE OR EASILY DEMOUNTABLE WALLS. USED AS TEACHING AIDS, SPACE DIVIDERS, SPACE CHANGERS, AND DISPLAY PANELS, THESE WALLS ARE USUALLY MOST EFFECTIVE WHEN USED IN LARGE SPACES SUCH AS AUDITORIUMS, GYMNASIUMS, LIBRARIES, OR CAFETERIAS. BUILDINGS DESIGNED WITH MOVABLE WALLS IN MIND SHOULD HAVE FLAT CEILINGS, STRAIGHT EXTERIOR WALLS, AND EVEN LIGHTING DISTRIBUTION. THIS ARTICLE APPEARED IN THE FEBRUARY, 1963, ISSUE OF EDUCATIONAL EXECUTIVE'S OVERVIEW. COPIES MAY BE OBTAINED BY WRITING TO THE EDITOR, EDUCATIONAL EXECUTIVE'S OVERVIEW, BUTTENHEIM PUBLISHING CORPORATION, 747 THIRD AVENUE, NEW YORK, N.Y. (JT)

IDEAS FOR PLANNING YOUR INSTRUCTIONAL MATERIALS CENTER
(ADMINISTRATION CONFERENCE AND INDEPENDENT STUDY LISTENING AND
VIEWING MATERIALS PRODUCTION READING, RESEARCH AND BORROWING
STORAGE AND MAINTENANCE)

MASSACHUSETTS SCHOOL BUILDING ASSISTANCE COMMISSION, BOSTON

PUBLISHED-JUN64

DESCRIPTORS- *INSTRUCTIONAL MATERIALS CENTERS, *LIBRARIES,
*LIBRARY FACILITIES, *PLANNING, *STUDY FACILITIES, MULTIPURPOSE
CLASSROOMS, SCHOOL PLANNING, SCHOOL LIBRARIES

ACCORDING TO THIS STATEMENT, SPACE ALLOCATIONS SHOULD BE
MADE FOR ADMINISTRATION, CONFERENCE AND INDEPENDENT STUDY,
LISTENING AND VIEWING, MATERIALS PRODUCTION, READING, RESEARCH,
BORROWING, STORAGE AND MAINTENANCE IN AN INSTRUCTIONAL MATERIALS
CENTER. THE INSTRUCTIONAL MATERIALS CENTER SHOULD BE FLEXIBLE FOR
MULTIGROUP ACTIVITIES, EXPANSIBLE FOR FUTURE PHYSICAL GROWTH, AND
CENTRAL TO THE INSTRUCTIONAL PROGRAM. AREA SPECIFICATIONS ARE
GIVEN FOR THE MATERIALS RESEARCH SMALL GROUPS, CATALOGING AND
PROCESSING MATERIALS, LISTENING AND SPEAKING AREAS, A DARK ROOM,
A TELEVISION STUDIO, AND A DEVELOPMENTAL READING ROOM. MATERIALS
AND EQUIPMENT LISTS AND A BIBLIOGRAPHY ARE INCLUDED.

THE COLLEGE AND UNIVERSITY FINE ARTS CENTER

BY- HUTCHINSON, GEORGE A.
PERKINS AND WILL, ARCHITECTS, CHICAGO, ILLINOIS

PUBLISHED-DEC60

059 PAGES

DESCRIPTORS- *ART EDUCATION, *CASE STUDIES (FACILITIES),
*EDUCATIONAL SPECIFICATIONS, *FINE ARTS CENTERS, *FLEXIBLE
FACILITIES, ART ACTIVITIES, BUILDING DESIGN, EDUCATIONAL
OBJECTIVES, FACILITY GUIDELINES, MULTIPURPOSE CLASSROOMS

VIEWS CONCERNING THE FINE ARTS CENTER CONCEPT WERE GENERATED FROM WORKSHOP DISCUSSIONS ON THE FUNDAMENTALS OF COMPOSITION, EDUCATIONAL SCOPE AND FORM, IMAGINATIVE TEACHING METHODS, AND THE DETAILS OF SHAPE, SIZE AND EQUIPMENT OF EXISTING CENTERS. THE EDUCATIONAL PHILOSOPHIES DIRECTING THE FINE ARTS CENTER, THE DISCIPLINES WHICH MAY BE INCLUDED IN SUCH A FACILITY AND THE TYPES OF FACILITIES WHICH ARE REQUIRED FOR ART, MUSIC AND DRAMA WERE REVIEWED. ALSO DISCUSSED WERE POSSIBLE COMBINATIONS OF THE ARTS INTO A MULTI-USE OR GENERAL PURPOSE FACILITY. FOUR PROPOSED CENTERS WERE INVESTIGATED IN TERMS OF SPACE REQUIREMENTS AND DEPARTMENT UTILIZATION, AND TWELVE CENTERS WERE ANALYZED TO DEMONSTRATE HOW EXISTING FACILITIES HAVE SATISFIED THE OBJECTIVES OF AN INTEGRATED, FINE ARTS COMPLEX. (BH)

EVOLUTION OF A LEARNING CENTER

BY- HUTCHINSON, GEORGE A.
PERKINS AND WILL PARTNERSHIP, WASHINGTON, D. C.

PUBLISHED-MAY67
IN- COLLEGE AND UNIVERSITY BUSINESS, VOL. 42, NO. 5, MAY 1967

4 PAGES

DESCRIPTORS- *CLASSROOM DESIGN, *EDUCATIONAL FACILITIES,
*EDUCATIONAL INNOVATION, *FLEXIBLE CLASSROOMS, *LEARNING
ACTIVITIES, BUILDING DESIGN, EDUCATIONAL OBJECTIVES, FLEXIBLE
FACILITIES, INTERIOR SPACE

THE LEARNING CENTER CONSISTS OF PHYSICAL FACILITIES
APPROPRIATE AND RESPONSIVE TO THE ENERGIZING CONCEPTS OF
EDUCATION BASED ON HOW STUDENTS LEARN. INSTEAD OF STRUCTURING THE
FACILITIES INTO SIMILAR SIZED CLASSROOM SPACES, THE CENTER
PROGRAMS FACILITIES FOR LARGE GROUP SPACES ACCOMMODATING 150 OR
MORE STUDENTS, SMALL GROUP COMMUNICATION AREAS OF ABOUT THIRTY
STUDENTS AND INDIVIDUAL STUDY AREAS. ACCOMPANYING SKETCHES
GRAPHICALLY PRESENT THE LEARNING CENTER CONCEPTS AND ARE
SUGGESTIVE OF POSSIBLE ORGANIZATIONS OF SPACE. THE LEARNING
CENTER FACILITIES HAVE THE FLEXIBILITY NEEDED TO PROVIDE THE
STUDENT WITH A MAXIMUM OF LEARNING OPPORTUNITIES. THIS ARTICLE IS
PUBLISHED IN COLLEGE AND UNIVERSITY BUSINESS, VOL. 42, NO. 5, MAY
1967. COPIES MAY BE OBTAINED BY WRITING TO THE EDITOR, COLLEGE
AND UNIVERSITY BUSINESS, 1050 MERCHANDISE MART, CHICAGO, ILLINOIS
60654. (BH)

MAJOR CONSIDERATIONS IN SCHOOL MODERNIZATION - AGE, LOCATION,
EDUCATIONAL ADEQUACY

BY- LHCTE, JOHN D.
RESEARCH COUNCIL OF THE GREAT CITIES PROGRAM FOR SCHOOL
IMPROVEMENT, CHICAGO, ILLINOIS

PUBLISHED-OCT67
IN- NEW LIFE FOR OLD SCHOOLS NEWSLETTER, NO. 22

004 PAGES

DESCRIPTORS- *BUILDING IMPROVEMENT, *CONSTRUCTION COSTS,
*EDUCATIONAL NEEDS, *PHYSICAL DESIGN NEEDS, *SCHOOL CONSTRUCTION,
AGE, BUILDING OBSOLESCENCE, EDUCATIONAL FACILITIES, EDUCATIONAL
SPECIFICATIONS, FLEXIBLE FACILITIES, SCHOOL LOCATION

A DESCRIPTION OF THE RELATIONSHIP BETWEEN SCHOOL
MODERNIZATION AND BUILDING AGE, WITH PARTICULAR ATTENTION TO
RENOVATION RATHER THAN NEW CONSTRUCTION TO MEET CHANGING
EDUCATIONAL NEEDS, IS GIVEN. THE NEWSLETTER EMPHASIZES
EDUCATIONAL ADEQUACY AS BEING MORE IMPORTANT THAN BUILDING AGE,
AND DESCRIBES RENOVATION TECHNIQUES WHICH WILL FACILITATE THIS
APPROACH. A MAJOR CONSIDERATION IS IN TEACHING NEEDS AND
EDUCATIONAL METHODS AS CRITERIA IN ADDITION TO LIGHTING AND
CLIMATE CONTROL WHICH SERVE PHYSIOLOGICAL NEEDS. OTHER ITEMS
INCLUDE DECISION MAKING PROCESSES, COSTS, FLEXIBILITY, AND
TEACHER EDUCATION. CLARIFICATION OF THE TERM SCHOOL MODERNIZATION
IS ALSO INCLUDED. (MM)

WHAT ABOUT CARPET

BY- SMITH, MILLARD J.
SHAKER HIGH SCHOOL, LATHAM, NEW YORK

PUBLISHED-MAY64

004 PAGES

DESCRIPTORS- *ACOUSTICS, *CARPETING, *FACILITY CASE STUDIES,
*FLEXIBLE FACILITIES, *MAINTENANCE, BEHAVIOR PATTERNS

A SPEECH BASED ON THE OBSERVATIONS OF MILLARD J SMITH, PRINCIPAL OF SHAKER HIGH SCHOOL, LATHAM, NEW YORK, REGARDING THE USE OF CARPETING CONCLUDES THE BEHAVIOR PATTERNS OF THE STUDENTS ARE ALTERED BY THE USE OF CARPETING. CARPETS PROVIDE THE OPPORTUNITY TO USE OTHER AREAS OF THE SCHOOL AS CLASSROOMS. HALLS, CORRIDORS, STAIRS, LOBBIES, AND FLOOR ARE ALL CLASSROOMS. IN ADDITION, CARPET PREVENTS NOISE. CARPETING PRODUCES THE ACOUSTICAL ATMOSPHERE WHICH ALLOWS PARTITIONS TO BE MOVED AND ALTERED AT WILL. ACOUSTICAL CONTROL THROUGH CARPETING ALLOWS TEACHERS TO TEACH BETTER, KEEPS NOISE LEVELS DOWN, AND PROVIDES FLEXIBILITY OF UTILIZATION TO MEET THE NEEDS OF A MODERN SCHOOL PROGRAM. IT HAS BEEN FOUND THAT TEACHERS PREFER TO TEACH IN A CARPETED ENVIRONMENT. A PROBLEM IS WHEN CLEANING A SPOT THE CARPET IS CLEANER IN THAT AREA, HOWEVER, IN A FEW DAYS OF USE THE CARPET IS EVENED UP AGAIN. SPOT CLEANING IS DONE BY THE REGULAR CUSTODIAL STAFF. CARPET DOES COST LESS TO MAINTAIN AND THE SAVINGS CAN ADD UP TO THE COST OF REPLACING THE CARPET. VERY LITTLE TIME IS SPENT IN CLEANING CARPETS. ALSO THE EASE OF MAINTENANCE MEANS THAT CARPETED ROOMS CAN BE USED FOR AFTER-SCHOOL ACTIVITIES MORE THAN OTHER ROOMS BECAUSE THEY ARE ALWAYS READY. AN INVITATION IS EXTENDED BY MR. MILLARD TO VISIT SHAKER HIGH SCHOOL AND VIEW THEIR CARPET EXPERIMENT. IT IS REQUESTED THAT A LETTER BE SENT SPECIFYING THE PLANNED ARRIVAL DATE. (RK)